UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,246	05/22/2006	Jee Woong Seol	K-0794	1587

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EXAMINER
SARWAR, BABAR

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/580,246	SEOL, JEE WOONG
	Examiner	Art Unit	
	BABAR SARWAR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02/13/2009</u>.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-15</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-15</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to **claims 1-15** have been considered but are

moot in view of the new ground(s) of rejection.

2.   **Claims 1, 3-7, 9** have been amended.

3.   **Claims 10-15** are newly added claims.

4.   **Claims 1-15** are currently pending.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chen et al. (US 7155236 B2) in view of Fong et al. (US 2004/0240424 A1), hereinafter

referenced as Chen and Fong.

Consider **claims 1, 6**, Chen discloses a reverse data rate control method

(Abstract, where Chen discloses various mechanisms for controlling

transmission between base stations and mobile stations) comprising: receiving a

first grant message including reverse data rate control information and application range

indication information from a base station **(Col. 18: 24-37, where Chen discloses F-**

GCH and R-REQCH, therefore reverse data rate control information and

application range indication information); and controlling the reverse data rate

according to the reverse data rate control information included in the first grant message based on the application range indication information **(Col. 18: 24-37, where Chen discloses that F-GCH is transmitted from the scheduling base station in response to R-REQCH from the mobile station, therefore controlling the reverse data rate)**, wherein if the application range indication information indicates that contents of the first grant message are to be applied to [[a]] less than all ARQ channels in an ARQ-channel unit included in a first period of time, then: an application range of the contents of the first grant message is to be limited to a prescribed range **(Col. 25:58-60, Col. 26:17-19, Fig. 5, where Chen discloses the autonomous transmission determined by the scheduling base station, therefore limiting to the prescribed range by using less than all ARQ channels in an ARQ-channel unit)**.

Chen does not explicitly disclose that if a non-acknowledgement (NAK) signal is received from the base station over one of said less than all ARQ channels in the ARQ-channel unit group, a packet is to be retransmitted at a reverse data rate indicated in a second grant message received before the first grant message, instead of at a data rate indicated in the first grant message even if receiving a NAK signal from the base station at a time point of receiving the grant message. Fong discloses if a non-acknowledgement (NAK) signal is received from the base station over one of said less than all ARQ channels in the ARQ-channel unit group **(Para 0076, Fig. 5A-B, where Fong discloses the mobile station receiving NAK from the base station for a packet)**, a packet is to be retransmitted at a reverse data rate indicated in a second grant message received before the first grant message, instead of at a data rate

indicated in the first grant message even if receiving a NAK signal from the base station

at a time point of receiving the grant message **(Para 0076, Fig. 5A-B, where Fong**

discloses the mobile station receiving NAK from the base station and

transmitting the sub-packet (A1) at the previously specified transmission rate

because A1 is negatively acknowledged by the base station). Therefore it would

have been obvious to one of ordinary skills in the art at the time the invention was made

to modify Chen with the teachings of Fong so as to efficiently provide dynamic

scheduling of reverse link packet data transmission as discussed on **Para 44**.

Consider **claim 2**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Chen discloses that wherein the reverse

data rate control information is a maximum encoder packet size (EP-SIE) **(Col. 40:21-**

25, where Chen discloses selecting the maximum encoder size).

Consider **claim 3**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Fong discloses that wherein the application range

indication information includes: ALL_ACID IND information indicating whether the first

grant message is to be applied to all or fewer than all the ARQ-channels in the ARQ-

channel unit group **(Abstract, where Fong discloses ALL_ACID IND bit instructing**

the mobile station to adjust the specified transmission rate for either a single H-

ARQ channel or for all H-ARQ channels), and PERSISTENCE information indicating

whether the first grant message is to keep being applied to one of said less than all the

a specific ARQ-channels in the ARQ-channel unit group **(Abstract, where Fong**

discloses that the mobile station transmits sub-packets at an autonomous

transmission rate based on a PERSISTENCE bit). Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Chen with the teachings of Fong so as to efficiently provide dynamic scheduling of reverse link packet data transmission as discussed on **Para 44**.

Consider **claim 4**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Chen discloses that wherein the prescribed range corresponds to said less than all the ARQ channels in the ARQ- channel unit group **(Col. 25:58-60, Col. 26:17-19, Fig. 5, where Chen discloses the group of ARQ channels)**.

Consider **claim 5**, the combination teaches everything claimed as implemented above (see claim 2). In addition, Chen discloses that wherein the reverse data rate is determined within a range of authorized_TPR corresponding to the maximum encoder packet size (EP-SIE) included in the first grant message **(Col. 13:52-60, where Chen discloses allocating resources based on traffic to pilot ratio T/P)**.

Consider **claim 7**, the combination teaches everything claimed as implemented above (see claim 3). In addition, Fong discloses that wherein [[if]] each value of the ALL_ACID_IND and the PERSISTENCE is FALSE **(Para 0046-0048, where Fong discloses ALL_ACID_IND bit in first logic state, logic zero and PERSISTENCE bit in first logic state, logic zero)**. Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Chen with the teachings of Fong so as to efficiently provide dynamic scheduling of reverse link packet data transmission as discussed on **Para 44**.

Consider **claim 8**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Chen discloses that wherein a channel carrying

reverse data is a reverse-packet data channel (R-PDCH) **(Fig. 4, where Chen**

discloses R-REQCH).

Consider **claim 9**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Chen discloses that wherein the first grant message is

received over a forward-grant channel (F-GCH) **(Fig. 4, where Chen discloses F-**

GCH).

Consider **claim 10**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Chen discloses that wherein the contents of the first

grant message are to be applied to only one ARQ channel in the ARQ-channel unit

group **(Fig. 5, where Chen discloses ARQ channels)**.

Consider **claim 11**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Chen discloses that wherein the prescribed range

corresponds to only one ARQ channel in the ARQ-channel unit group, the NAK signal

received over said only one ARQ channel **(Fig. 5, where Chen discloses ARQ**

channels).

Consider **claim 12**, the combination teaches everything claimed as implemented

above (see claim 1). In addition, Chen discloses that receiving a third grant message

after the first grant message **(Col. 18: 24-37, where Chen discloses F-GCH and R-**

REQCH); receiving an acknowledgment (ACK) signal during a second period of time

after the first period of time, the ACK signal received over one of said less than all ARQ

channels; and determining a reverse data rate based on contents of the third grant

message or command contents of a rate control bit, wherein the second period of time

includes a repeated progression of the ARQ channels in the ARQ-channel unit group

(Col. 14:22-45, where Chen discloses retransmission technique i.e. ACK/NAK and

ARQ).

Consider **claim 13**, the combination teaches everything claimed as implemented

above (see claim 6). In addition, Fong discloses wherein the application range indication

information includes: ALL_ACID_IND information indicating whether the first grant

message is to be applied to all or fewer than all the ARQ-channels in the ARQ-channel

unit group, and PERSISTENCE information indicating whether the first grant message

is to keep being applied to one of said less than all the ARQ-channels in the ARQ-

channel unit group **(Para 0046-0048, where Fong discloses ALL_ACID_IND bit and**

PERSISTENCE bit). Therefore it would have been obvious to one of ordinary skills in

the art at the time the invention was made to modify Chen with the teachings of Fong so

as to efficiently provide dynamic scheduling of reverse link packet data transmission as

discussed on **Para 44**.

Consider **claim 14**, the combination teaches everything claimed as implemented

above (see claim 13). In addition, Fong discloses wherein the values of ALL_ACID_IND

and the PERSISTENCE are TRUE and FALSE, respectively **(Para 0046-0048, where**

Fong discloses ALL_ACID_IND bit and PERSISTENCE bit and their logic states).

Claim 15, as analyzed with respect to the limitations as discussed in claim 12.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BABAR SARWAR whose telephone number is

(571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY

09:00 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/   /BABAR SARWAR/
                                                                    Examiner, Art Unit 2617

/NICK CORSARO/
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